IN THE SPECIFICATION:

Please replace the paragraph beginning at page 2, line 3 as follows:

According to an exemplary embodiment of the present invention, this object is solved with a receiver for estimation or compensation of phase imbalance or gain imbalance utilizing a QPSK modulation scheme and a modulation scheme based on complex scrambling code, the demodulator comprising means for estimating the phase imbalance or gain imbalance before ~~synchronisation~~ synchronization.

Please replace the paragraph beginning at page 2, line 7 as follows:

Such a receiver according to an exemplary embodiment of the present invention ~~as set forth in claim 1,~~ allows for the estimation or compensation of phase imbalance or gain imbalance that can affect the overall performance of the receiver, at an early stage, i.e. before ~~synchronisation~~ synchronization, by e.g. exploiting the properties of the complex scrambling code. Thus, phase imbalances or amplitude imbalances will not be able to introduce losses in the further phases of the connection. Furthermore, if the bandwidth inside which time variations in the imbalances occur is lower than the transmission bandwidth, the demodulator is also able to track these time variations.

Please replace the paragraph beginning at page 3, line 3 as follows:

According to yet another exemplary embodiment of the present invention ~~as set forth in claim 4~~, the receiver comprises means for compensating the phase imbalance or gain imbalance before ~~synchronisation~~ synchronization.

Please replace the paragraph beginning at page 3, line 6 as follows:

According to another exemplary embodiment ~~as set forth in claim 5~~, the receiver is a WCDMA (UMTS) receiver (Wide Band Code Division Multiple Access receiver). Thus, as a basic principle exploited in the WCDMA (UMTS) receiver, the channel is frequency selective with respect to the transmission bandwidth allowing for a very accurate estimation of the phase/gain imbalance before ~~synchronisation~~ synchronization.

Please replace the paragraph beginning at page 3, line 14 as follows:

According to yet another exemplary embodiment ~~as set forth in claim 7~~, a method for estimation or compensation of phase imbalance or gain imbalance in a receiver is provided, which may advantageously exploit the properties of the complex scrambling code and of the overall UMTS modulation scheme in the early stage of the receiver by estimating the phase imbalance or gain imbalance before ~~synchronisation~~ synchronization.

Please replace the paragraph beginning at page 3, line 31 as follows:

~~It may be seen as a gist~~ Preferably according to ~~of~~ the present invention, ~~that~~ the phase imbalance or gain imbalance is estimated or compensated before symbol ~~synchronisation~~ synchronization. Thus the phase imbalance and gain imbalance will not be able to introduce losses in the further phases of the connection; also the method is able to track temporal drifts in phase and in gain if the bandwidth inside which these phenomena occur is lower than the transmission bandwidth. The advantage of this method is, that it can be used both, for phase imbalance estimation and compensation and

gain imbalance estimation and compensation in the case that there is also a gain mismatch.

Please replace the paragraph beginning at page 9, line 11 as follows:

The I and Q components affected by phase imbalance or gain imbalance and are provided to lines 6 and 7, which are connected to lines 4 and 5. The I and Q components are fed into means 8 for taking the cross correlation of I and Q, such as a multiplier. Additionally, the I component is fed into means 9 for taking the quadrature of I, such as a multiplier which multiplies I with I. After that, the resulting signals are taken through low pass filters 12, 13 by lines 10, 11, respectively. For estimation of the phase imbalance, a ratio between the cross correlation of I and Q and the mean value of the square of I is generated by means for generating a ratio 14, such as a divider, and consecutively passed through low pass filter 15. After that, the resulting signal is provided to a phase/gain compensator 17 via a line 16. The phase/gain compensator 17 compensates the phase imbalance or the gain imbalance of the I and Q components. Thereupon, the estimated and compensated I and Q components i_e and q_e, are taken by lines 18 and 19, respectively, to be fed into means for ~~synchronisation~~ synchronization 20, such as a UMTS synchronizer. After ~~synchronisation~~ synchronization, the signal is ready for further processing, e.g., in reference to the standard architecture for the UMTS receiver, it can be fed into the rake receiver to exploit time diversity and then to the channel decoder to correct/reveal residual errors.

Please replace the paragraph beginning at page 12, line 26, as follows:

For estimation of the phase imbalance, a ratio between the cross correlation of I and Q and the quadrature of I is generated by means for generating a ratio 14, such as a divider. After that, the resulting signal is integrated by means of an integrator 25 provided to line 16 and fed back into the phase/gain compensator 17 located between lines 4, 5 and 18, 19, for compensating/estimating the phase imbalance or the gain imbalance of the I and Q components. Thereupon, the estimated and compensated I and Q components i_c and q_c, respectively, are fed back to lines 18, 19 to be fed into means for ~~synchronisation~~ synchronization 20 such as a UMTS synchronizer.